



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF
WP-16J

MEMORANDUM

SUBJECT: Review of Public Notice Draft NPDES Permit for the JBS Swift Pork Company, Beardstown, Illinois (IL0023914)

From: Jodie Opie, Environmental Engineer *Jo* 9/25/19
Permits Branch

To: Andrea Schaller, Section 1 Chief *AS*
Permits Branch

Recommendation:

Attached is a recommended transmittal of the results of EPA's review of the Public Notice Draft NPDES Permit for the JBS Swift Pork Company, Beardstown, Illinois (IL0023914), which was received by EPA via United States Postal Service via mail, by the Illinois Environmental Protection Agency (IEPA), on August 21, 2019. The permit was reviewed in accordance with the branch Standard Operating Procedures and was identified for review through an October 16, 2018 letter from U.S. Senator Richard Durbin to US EPA Administrator Wheeler. The review found no significant issues which warrant comment to the state. However, the following comments were conveyed to the state:

1. On page 3 of the Industrial NPDES Permit Review Notes regarding CBOD it states information regarding Excel Corporation. How does Excel Corporation fit into JBS Swift Pork Company? If this is an error, please correct it.
2. On page 4 of the Industrial NPDES Permit Review Notes the units of the second table are incorrect. The maximum daily and Maximum Monthly Avg. are not mg/l. The correct units are pounds per 1000 pounds.
3. The Beardstown STP NPDES permit (IL0025135) lists their receiving water as the Illinois River (40° 00' 50" N, 90° 26' 32" W) whereas the JBS Pork Company NPDES permit list the receiving water as the Illinois River via the Beardstown STP effluent channel (40° 00' 48" N, 90° 26' 46" W). I just want to make sure that the receiving water is accurate between the two. Is there actually a Beardstown STP effluent channel (or for JBS should it also just be the Illinois River?) and if there is shouldn't the receiving water for Beardstown be listed as the Illinois River via the Beardstown STP effluent channel as well? Please clarify the receiving waters between the two NPDES permits in both the fact sheet and the draft NPDES permit.
4. On page 5 of the draft NPDES fact sheet in the very last sentence replace the word, "of" with the word, "than".

5. On page 4 of the draft NPDES permit at SC 3 in paragraph A it states, "The discharge must not exceed the maximum limits in the following table during more than one percent of the hours in the 12-month period ending with any month." Please rewrite this sentence as it doesn't quite make sense.
6. On page 5 of the draft NPDES permit at SC 8 delete the phrase, "obvious levels." According to 302.203, Offensive Conditions, the receiving waters shall be free from offensive conditions such as floating debris, color, turbidity, etc.
7. The Development Document for the Meat and Poultry category discusses best management practices used for spray irrigation to reduce exposure to pathogens such as creating buffer zones with or without hedgerows, using low pressure nozzles aimed downward, avoiding wastewater spraying under windy conditions and restricting irrigation to daylight hours as well as requiring 6 months of storage to avoid spraying on frozen, snow-covered or saturated soils. These BMPs are not incorporated into the NPDES permit but are they incorporated into any other document/permit such as the operating permit for this facility? If not, it is recommended that these BMPs be incorporated into the draft NPDES permit. And if they are located in the operating permit, please forward a copy of the operating permit to EPA.

Facility Background:

JBS Swift Pork Company is engaged in pork Processing operations including animal holding, slaughtering, eviscerating, trimming, cutting, blood rendering, and by-products recovery under SIC code 2011. The company processes are subject to 40 CFR Part 432, Subpart B (complex slaughterhouse of the Meat and Poultry Products Point Source Category). Process wastewater is generated in the production of fresh pork products, pork trimmings, organs, dried blood, blood-by-products and edible and inedible rendering products. Plant operations results in an estimated average discharge of 0.006 MGD of stormwater and spray irrigation run-off from Outfall 001 and an average discharge of 2.0 MGD of wastewater treatment effluent and stormwater runoff from Outfall 002. Process wastewaters are treated in the on-site wastewater treatment plant consisting of screening, grease removal, a 19-million-gallon anaerobic lagoon, an activated sludge system, a 2.0 MG anoxic basin with carbon source addition for denitrification, multiple clarifiers, and ultraviolet disinfection prior to discharging via Outfall 002. A portion of the wastewater is diverted after the anaerobic lagoon to two holding ponds prior to being used for spray irrigation on nearby fields. Sludge is stored on-site in a sludge holding basin prior to being composted or spray irrigated on adjacent company owned agricultural fields.

The final effluent limitations to be limited and/or monitored include: Flow, Carbonaceous Biochemical Oxygen Demand (CBOD₅), Total Suspended Solids (TSS), Total Nitrogen (TN), Nitrite and Nitrate, Total Phosphorus (TP), pH, Ammonia-Nitrogen, Oil & Grease, and Fecal Coliform. Limitations for CBOD₅, TSS, O&G, and Fecal Coliform are production-based standards based upon the facility's production rate of 5,318,181 pounds per day. These limitations are calculated according to the Best Practical Control Technology (BPT) under 40 CFR Part 432.22. Limitations for Ammonia-Nitrogen and Total Nitrogen are flow-based load limits calculated using a maximum process wastewater flow of 2.28 MGD. These limitations are calculated according to the Best Available Technology Economically Achievable (BAT) under 40 CFR Part 432.13.

Proposed changes to the draft permit from the previous permit include: Outfall A01 was removed from the permit as non-contact cooling water is now directed to the wastewater treatment plant tributary to

Outfall 002, thus Temperature limits were added to Outfall 002. Total Nitrogen and oil and grease limits were added to Outfall 001 as the spray irrigation wastewater is regulated by 40 CFR Part 432. The permittee is now required to prepare and submit a feasibility study that identifies the method and timeframe of reducing phosphorus and total nitrogen levels at Outfall 002 and is also required to develop and submit a phosphorus and total nitrogen discharge optimization plan.

Receiving Water – The facility discharges stormwater runoff and spray irrigation runoff through Outfall 001 to an unnamed tributary of the Illinois River which is classified as general use. The unnamed tributary to the Illinois River is not on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) list of impaired waters since it has not been assessed and is not a biologically significant stream on the 2008 Illinois DNR publication, *Integrating Multiple Taxa in a Biological Stream Rating System*. The facility also discharges treated wastewater and stormwater through Outfall 002 to the Illinois River via the Beardstown STP effluent channel which is classified as general use. The Illinois River, Water Body Segment D-31, receiving this discharge is on the draft 2016 Illinois Integrated Water Quality Report and Section 303(d) list of impaired waters and is not a biologically significant stream on the 2008 Illinois DNR publication, *Integrating Multiple Taxa in a Biological Stream Rating System*. The pollutants causing impairments for fish consumption and primary contact for this segment of the Illinois River include Mercury, PCBs and Fecal Coliform.

State Contacts - The following contacts were made with the State Permit Writer, Mark Liska, via email:

August 21, 2019 – The State Permit Writer submitted the draft permit review package via email to EPA.

August 22, 2019 – EPA emailed the State Industrial Permit Manager notifying him of the assignment to review the draft permit.

September 4, 2019 – The EPA permit reviewer called the State Permit Writer to ask some questions (Why does JBS not discharge to the local POTW? Where are the spray irrigation sites located? A description of the final effluent outfall in conjunction with the POTW effluent channel?) regarding the draft NPDES permit and request the submittal of the flow process diagram. The State Permit Writer submitted the flow diagram later that afternoon via email and answered the remaining questions (Why does JBS not discharge to the local POTW? He did not know so there is no answer. Where are the spray irrigation sites located? Company owned fields adjacent to the plant regulated under a state operating permit. A description of the final effluent outfall in conjunction with the POTW effluent channel? Given verbally).

September 10, 2019 – The EPA permit reviewer emailed the State Permit Writer a list of comments on the State Permit Writer Notes pages, the fact sheet and the draft NPDES permit. These are the comments:

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Recommendation - Signature to the enclosed No Objection letter is recommended so that the permit can be reissued.